VK2-720VZMX

Configuration and User manual

DESCRIPTION

The VK2-720VZMX external 18:1 zoom module with integrated IR illumination, is an internet protocol based megapixel network camera with a built-in web based viewer on Internet Explorer®. The camera has a connection feature for third-party applications and compatible with supplied Utility software for easy installation and Client software to search, configure, manage, live view, record and playback.

The camera supports dual compression formats and multiple streaming simultaneously. The two standard compression formats include H.264 and MJPEG. The multiple streams can be configured to a variety of resolutions, bit rates and frame rates.
The camera uses a 1/3 inch CCD sensor and zoom lens wit a focal length of 4.7-84.6mm, it also supports PoE (Power over Ethernet), DC12V, and AC24V.

Components

Quantity	Description
1	Camera
1	Installation CD
1	Accessory kit for installing All-In-One Camera
1	Template sheet
1	Extension connector kit

NOTE
Adapter for DC12V / AC24V are not supplied.

INSTALLATION

Carefully remove the contents from the box, and verity that nothing was damaged during shipping.

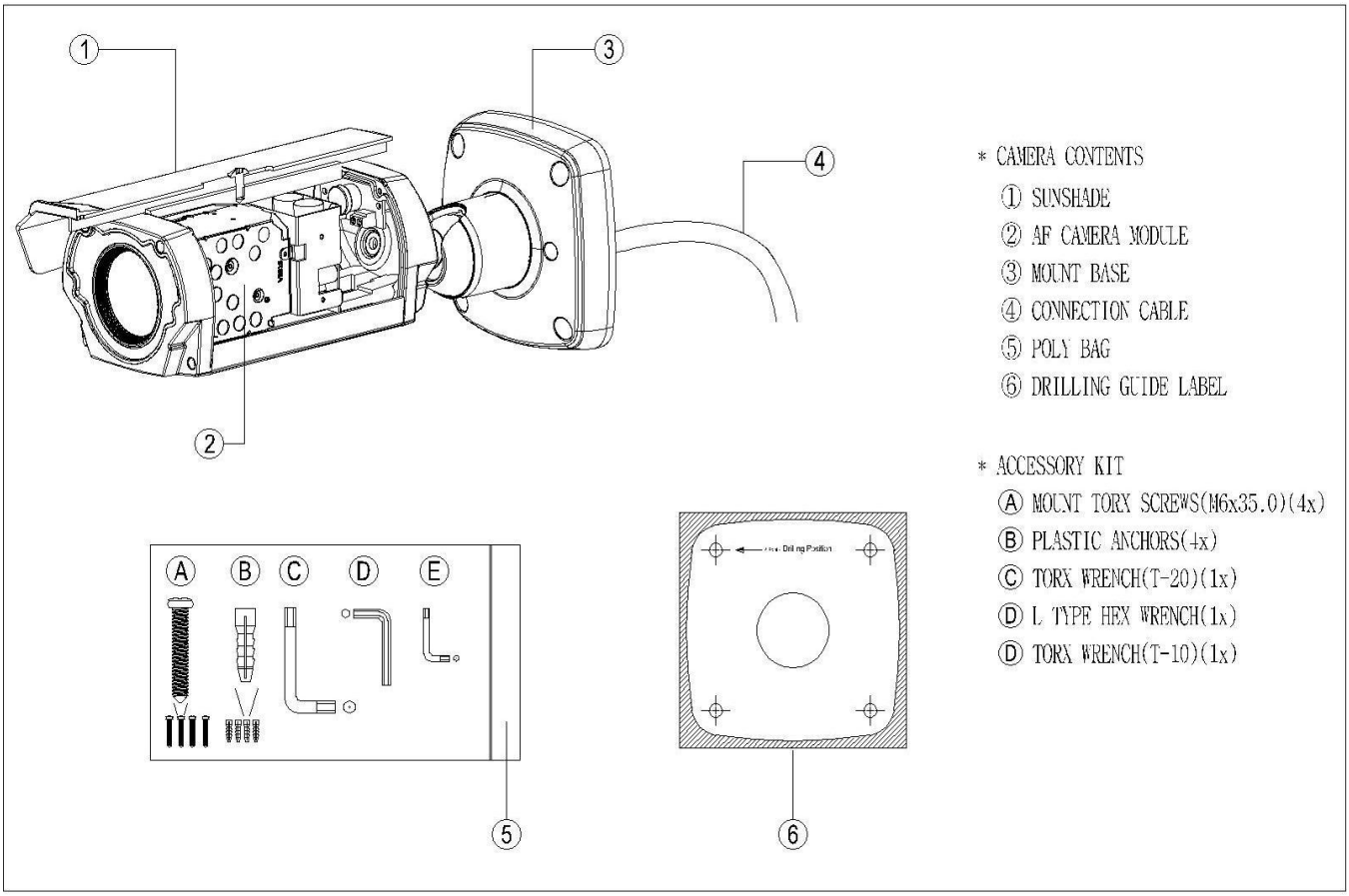


Figure 1 Parts Name

Before Installation

Before installing the camera, thoroughly familiarise yourself with the information in this section of the manual.

- To ensure secure access to the IP camera, place the camera behind a firewall when it is connected to a network.

Starting Installation

Installation1 (Cable through the wall)

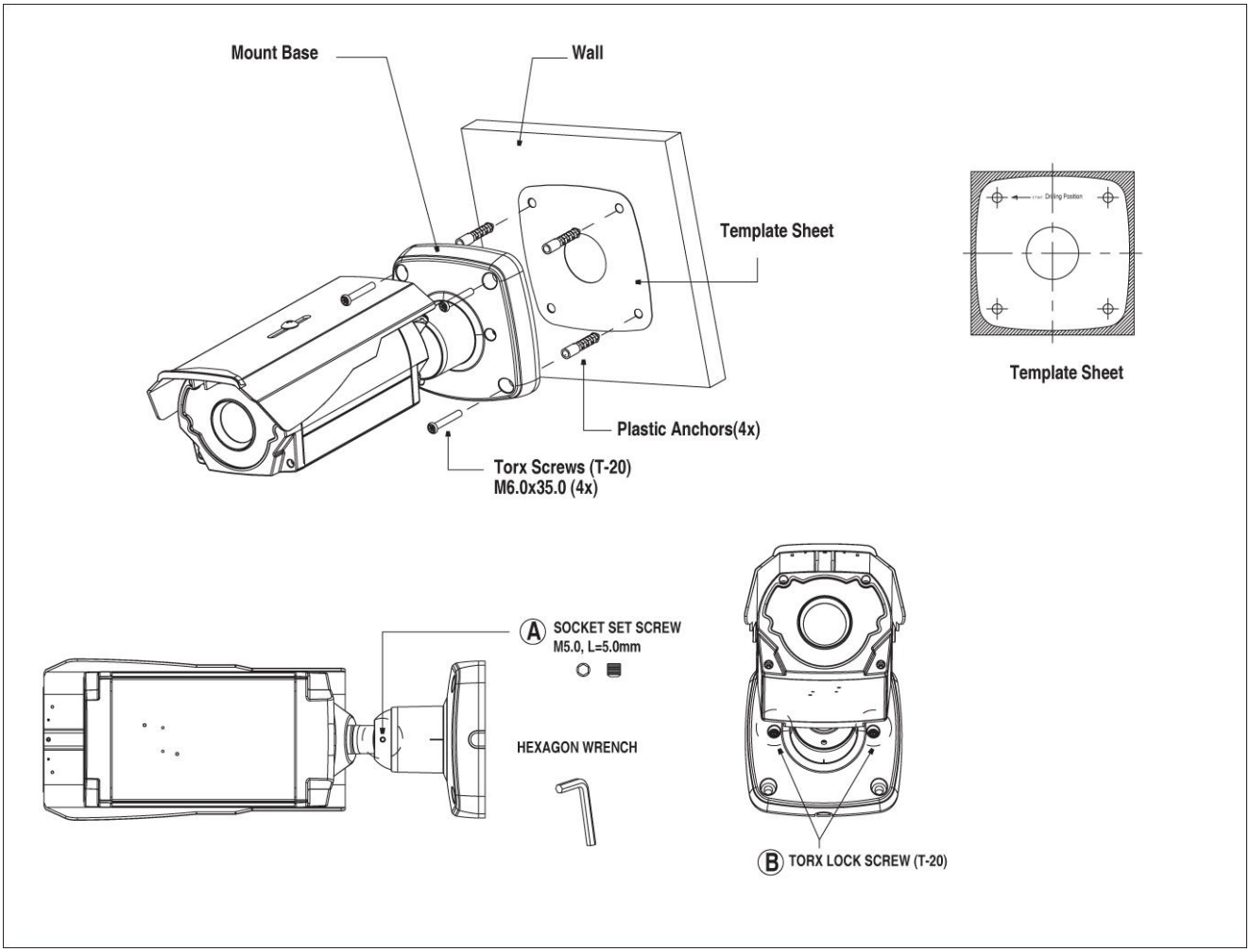


Figure 2 Installation 1

A. Drill the mounting location, using the template sheet (or the bottom of the mount base) as a template.
B. Insert the plastic anchors into the drilled holes.
C. Connect RJ45 cable and other required connections.
D. Fix the camera to the location using the screws supplied.
E. Adjust the camera direction, and fasten both the socket set screw (A) and torx lock screw (B) to fix the camera in the desired position.

Installation 2 (Using the conduit knockout on the camera mounting base)

A. Drill the mounting location, using the template sheet supplied.
B. Insert the plastic anchors into the drilled holes.

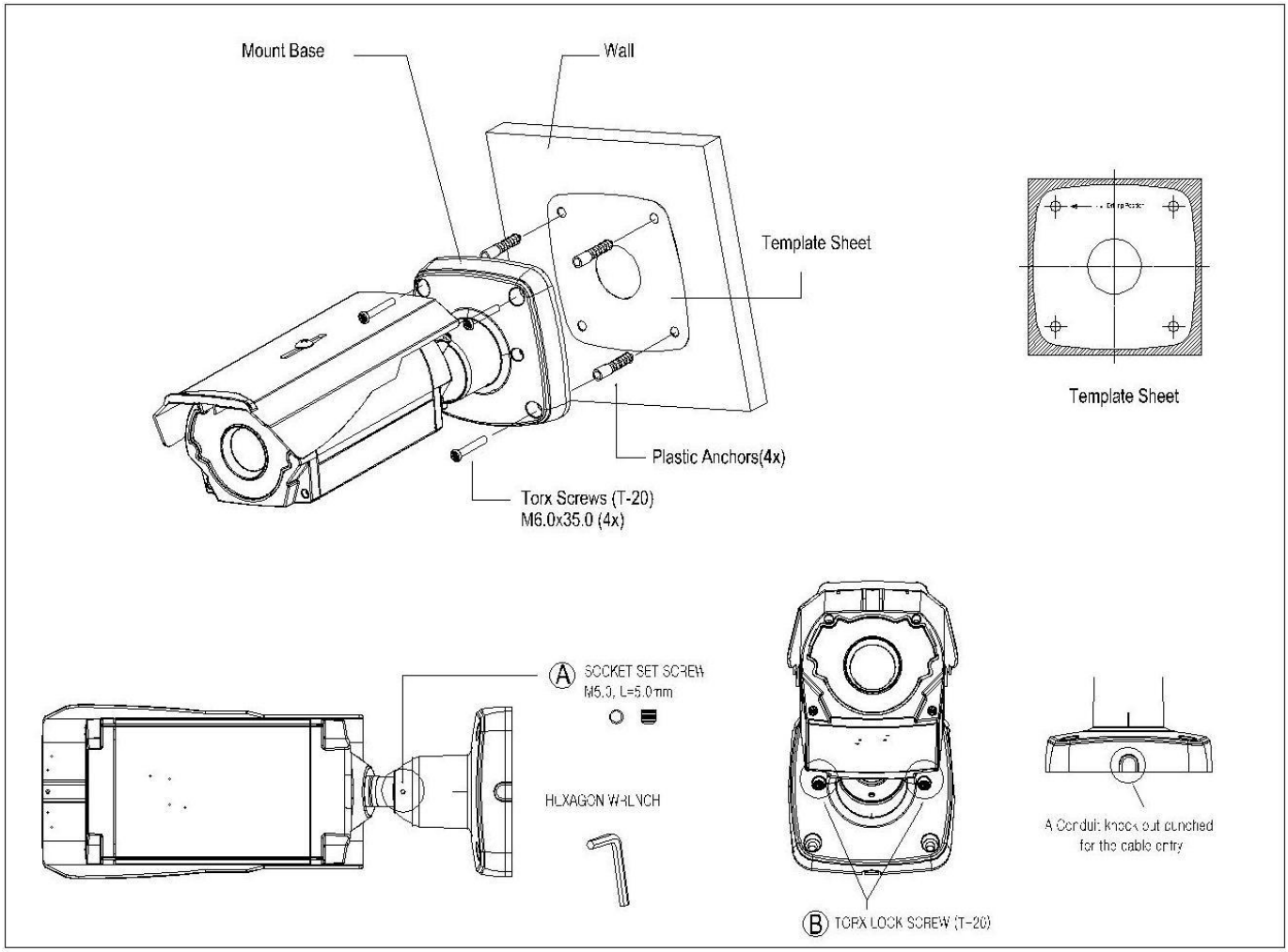
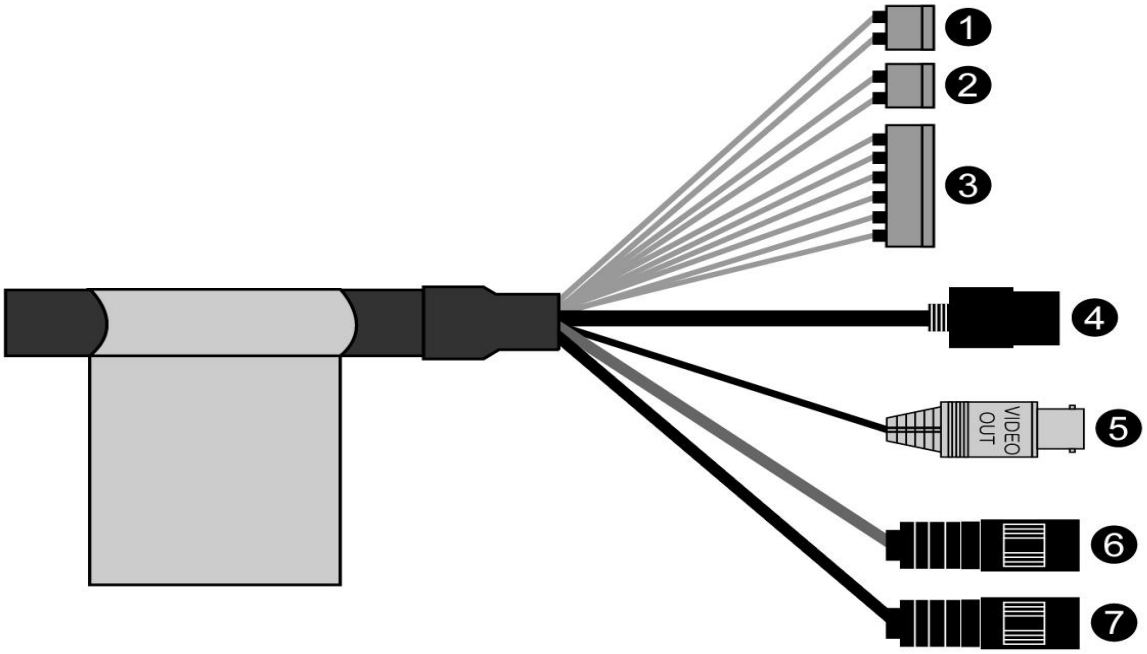


Figure 3 Installation 2

C. Connect RJ45 cable and other required connections.
D. Fit the screw holes of the mount base into the plastic anchors.
E. Remove the conduit knockout punched for the cable entry.
F. Fix the camera to the location using the screws supplied.
G. Adjust the camera direction, and fasten both the socket set screw (A) and torx lock screw (B) to fix the camera in the desired position.

[Installation 3]

Connection Cable



[Connection Cable]

1 **Main POWER connection**

- RED; DC12V or AC24V
- WHITE; GND or AC24V

2 **Heater POWER connection (Optional)**

- **ORANGE**; DC12V or AC24V
- **BLACK**; GND or AC24V

3 **ALARM connection**

- **PINK**; Alarm Input 1
- **GREEN**; GND
- **YELLOW**; Alarm Input 2
- **BROWN**; GND
- **Light BLUE**; Alarm Out
- **GRAY**; GND

4 **RJ-45 connection:** Connect Ethernet cable or supplies power to the camera if PoE is available.

5 **BNC connection:** Connect BNC cable for composite video output.

6 **SPEAKER connection (GRAY):** Connect external speaker for audio output.

7 **MIC connection (BLACK):** Supplies external microphone as an audio input source.

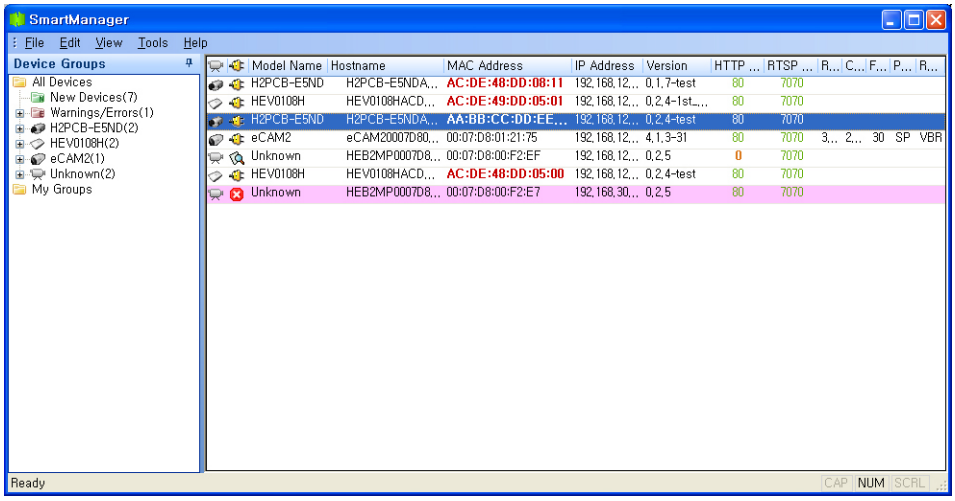
Connection to an IP network

A standard straight network patch cable can be used to connect the camera to a switch or hub. Generally if connecting directly to a PC a crossover cable would be used.

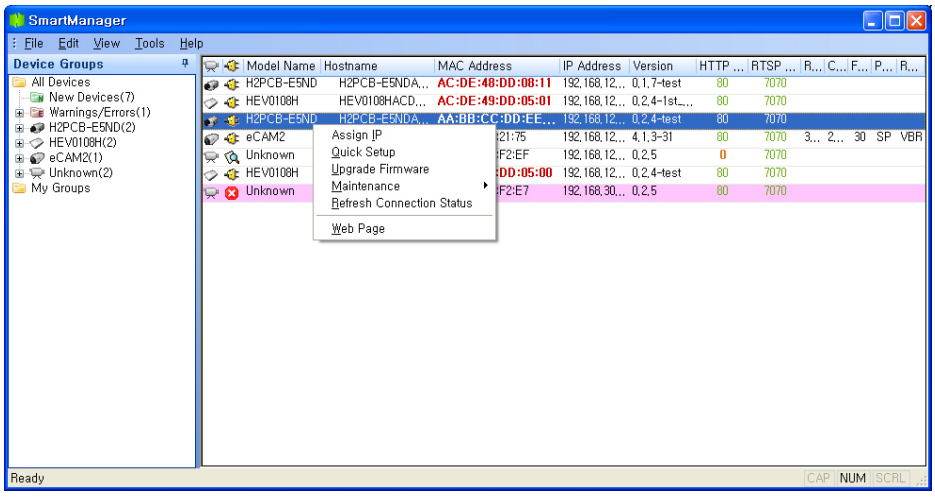
IP Assignment

When a camera is first connected to the network it has no IP address. To allocate an IP address to the device use the "Smart Manager" utility on the CD.

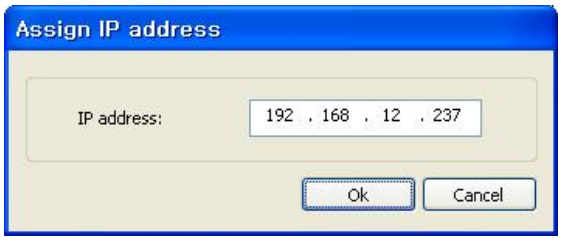
1. Connect the Network Camera / device to the network and power up.
2. Start Smart Manager utility, the main window will be displayed, after a short while any network devices connected to the network will be displayed in the list.


SmartManager
File Edit View Tools Help
Device Groups
All Devices
New Devices(7)
Warnings/Errors(1)
H2PCB-E5ND(2)
HEV0108H(2)
eCAM2(1)
Unknown(2)
My Groups
Model Name Hostname MAC Address IP Address Version HTTP ... RTSP ...
H2PCB-E5ND H2PCB-E5NDA... AC:DE:48:DD:08:11 192.168.12... 0.1.7-test 80 7070
HEV0108H HEV0108HACD... AC:DE:49:DD:05:01 192.168.12... 0.2.4-1st_... 80 7070
H2PCB-E5ND H2PCB-E5NDA... AA:BB:CC:DD:EE... 192.168.12... 0.2.4-test 80 7070
eCAM2 eCAM20007D80... 00:07:D8:01:21:75 192.168.12... 4.1.3-31 80 7070
Unknown HEB2MP0007D8... 00:07:D8:00:F2:EF 192.168.12... 0.2.5 0 7070
HEV0108H HEV0108HACD... AC:DE:48:DD:05:00 192.168.12... 0.2.4-test 80 7070
Unknown HEB2MP0007D8... 00:07:D8:00:F2:E7 192.168.30... 0.2.5 80 7070
Ready
CAP NUM SCRL

3. Select the camera on the list and right click. You will see the following pop-up menu:



4. Enter the required IP address.



Click OK, the devices IP address will be changed, ensure the PC is on the same network, to gain connection.

The connection status of each device on the network is indicated by the following icons:

: Available for connection to the camera
: Loading settings information of video after connecting the camera.
: Connectable to the camera but fixed security settings (password)
: Unavailable for connection to the camera (PC can not access relevant IP Address)

Note: For more information, refer to the Smart Manger User's Manual.

OPERATION

Before starting the camera, installation must be complete. The camera completes a configuration sequence within approximately 40 seconds when power is supplied. The amber LED of this megapixel camera flash one time per second indicating the configuration sequence is complete.

NOTE
- If the DHCP is enabled but the camera is not connected to a DHCP server, the camera will be set default IP 192.168.30.220 and try to get IP from DHCP server about every two seconds.
- Network and processor bandwidth limitations might cause the video stream to pause or appear pixilated when an increased number of Web-interface users connection to the camera. Decrease the images per second, resolution, compression, or bit rate settings of the Web-interface video streams to compensate for network or processor limitations.

Minimum conditions for using web browser

The minimum system requirements to use a Web browser with this IP camera are as follows:
- CPU: Pentium® 4 microprocessor, 2.0GHz
- Operational System: Windows XP® or Windows Vista® or Windows7®
- System Memory: RAM 512 Mbyte
- Ethernet: 100 Mbit
- Video Resolution: 1024(Horizontal) x 768(Vertical) pixels or higher
- Internet Explorer® 7 or later
- ActiveX® 1.0.0.13 or later

Accessing the IP camera

1. Open Web browser
- Double click Internet Explorer® icon.
2. Type IP address
- Type the camera's IP address in the Internet Explorer® address bar.
- The default IP address is ***192.168.30.220***

NOTE
- If you do not know the camera's IP address, install the SmartManager® utility software available on the CD supplied with the product. The utility software will locate the assigned Model name, Host name, MAC address, IP address, Version and others.
- Refer to the SmartManager® utility software manual for more detail.

3. Log On to the camera

- Click the Live View icon for default live image view or the Setup icon to change the configuration values.

Main Menu

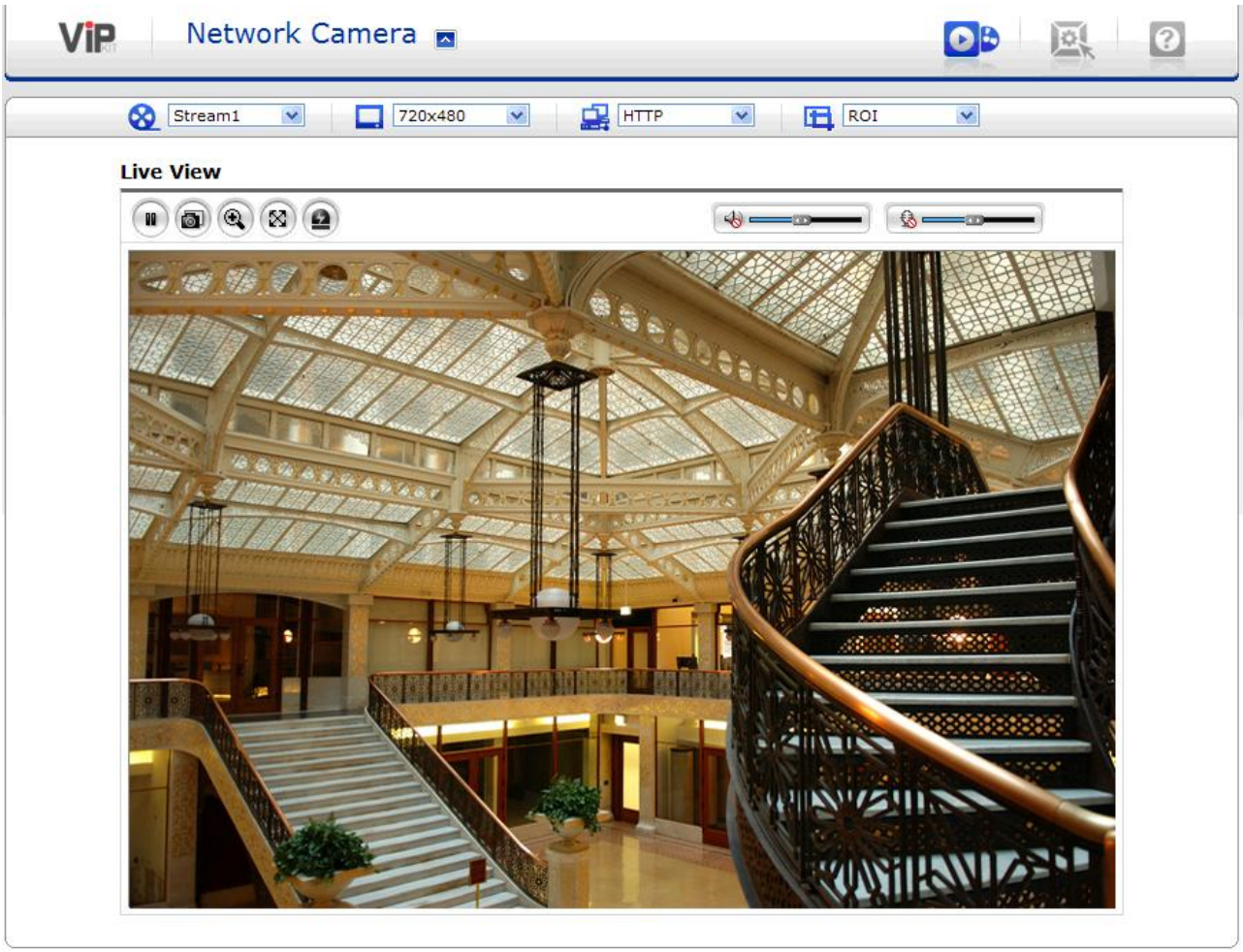
[Main menu]

The dialog box will be appears.
- Type User ID and Password in the dialog box. The default User ID and Password is ***admin***.

NOTE
For security purposes, be sure to change the password after you log on for the first time.

LIVE VIEW

The Live View page provides you to select the properties of video source. You can view the live image from this page and also access the Setup menu and operate the main functions.



[Main Live View Page]

Live Video Page Icons

Hide Main Icons: Hides main icons in the live view page.

Show Main Icons: Shows main icons in the live view page.

Live view: Displays live video stream.

Setup: Enters setup menu.

Help: Shows helpful information.

Source: Specify the viewable video stream source to display in live view page.

View Size: Specify the viewable video size to display in live view page.

Stream Type: Specify the internet protocol to display in live view page.

ROI View: Specify the specially selected area to transfer using different stream feature in the primary video image. ROI is an abbreviation for "Region of Interest".

Pause: Pause the live video stream.

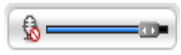
Snapshot: Take a picture of the video image currently on display. Supports the origin image size view, Print, and Save feature.

Digital Zoom: Supports a digital zoom in live video image.

Full Screen: Expands video image to the entire screen area.

Manual Trigger: Activates the Alarm Out signalling manually.

Speaker: Adjusts the volume of Speaker and switch the sound on / off.

 Microphone: Adjusts the volume of Microphone and switch the sound on / off.

Troubleshooting

If you suspect a problem is being caused by incorrect configuration or some other minor problem, consult the troubleshooting guide below.

Upgrading the Firmware

Firmware is software that determines the functionality of the network camera. One of your first actions when troubleshooting a problem should be to check the current firmware. The latest version may contain a correction that fixes your particular problem. The current firmware version in your camera is displayed on the Basic Configuration or About. For the latest firmware of the camera, please contact with your product administrator.
Detailed instructions on how to perform the upgrade process are provided with each new release. See also the Maintenance/ Upgrade for more information.

General Troubleshooting

The following list covers some of the problems that may be encountered and suggests how to remedy them:

Symptom → Possible Causes or Corrective Actions

1. The camera cannot be accessed by some clients.

→ If using a proxy server, try disabling the proxy setting in your browser. Check all cabling and connectors.

2. The camera works locally, but not externally.

→ Check if there are firewall settings that need to be adjusted. Check if there are router settings that need to be configured.

3. Poor or intermittent network connection.

→ If using a network switch, check that the port on that device uses the same setting for the network connection type (speed/duplex).

4. The camera cannot be accessed via a host name.

→ Check that the host name and DNS server settings are correct.

5. Not possible to log in.

→ When HTTPS is enabled, ensure that the correct protocol (HTTP or HTTPS) is used. When attempting to log in, you may need to manually type in http or https in the browser's address bar.

6. No image using Refresh and/or slow updating of images.

→ If images are very complex, try limiting the number of clients accessing the camera.

7. Images only shown in black & white.

→ Check the Video & Image setting.

8. Blurred images.

→ Refocus the camera.

9. Poor image quality.

→ Increased lighting can often improve image quality. Check that there is sufficient lighting at the monitored location. Check all image and lighting settings.

10. Rolling dark bands or flickering in image.

→ Try adjusting the Exposure Control setting under AE and AWB part.

11. H.264 not displayed in the client.

→ Check that the correct network interface is selected in the Video & Image/Stream.

12. Multicast H.264 not displayed in the client.

→ Check with your network administrator that the multicast addresses used by the camera are valid for your network. Check that the Enable multicast checkbox are enabled in the System/Network/RTP tab. Checks with your network administrator to see if there is a firewall preventing viewing.

13. Multicast H.264 only accessible by local clients.

→ Check if your router supports multicasting, or if the router settings between the client and the server need to be configured. The TTL value may need to be increased.

14. Color saturation is different in H.264 and Motion JPEG.

→ Modify the settings for your graphics adapter. Please see the adapter's documentation for more information.

15. Poor audio quality.

→ Too many users/clients connected to the camera may affect the sound quality adversely. Try limiting the number of clients allowed to connect.

16. Distorted audio.

→ Check that the correct Audio Input source is selected. Select Microphone for a connected external microphone. Select Line for a connected line in source.

NOTE

If you cannot find the help you require, please see the User's Manual, or contact with your network administrator.